THE MAYOR'S GREEN BUILDING TASKFORCE
September 18th, 2003 - Task Force Meeting

MEETING SUMMARY

The first meeting of the Mayor's Green Building Task Force (GBTF) was held on September 18th, 2003 at the World Trade Center. The meeting followed a tour conducted by Mark Adamo, of the Manulife Building, under construction in the heart of the Seaport District.

Andrea d'Amato, Chief of Environmental Services, welcomed members of the Mayor's Green Building Task Force and thanked Joy Conway, Senior Vice President at the Greater Boston Real Estate Board for acting as chair of the Task Force. She emphasized the importance of being green in the very beginning of a project, and explained the need for Boston to understand its authentic challenges to green building, especially as related to financing and regulatory issues.

Joy Conway, Senior Vice President at the Greater Boston Real Estate Board, and Chair of the Mayor's Green Building Task Force, began the meeting by welcoming participants and providing background and context for the work to be done. She explained that the ultimate mission of the Task Force is to recommend strategies and actions to promote green building and development in Boston. A work plan was distributed that suggested an outline of topics for each meeting throughout the year. For each topic discussed, it is the Task Force's role to suggest strategies, actions and activities to address existing barriers and create opportunities within the framework of market forces, public policy and, industry and practice.

Rebecca Barnes, Chief Planner for the BRA and Co-Chair of the Mayor's Green Building Task Force spoke next with many thanks to the supporting staff at the BRA and Development office of the City. Rebecca then outlined the tasks ahead to include: examining the obstacles and hurdles to green development in Boston and deciding how to avoid them in order to foster and facilitate the development of green building in Boston. She emphasized the need to think outside the box while also maintaining realistic perspective. She urged the task force to look at the City's regulations and then beyond, to both see big picture and also think in detail.

After a brief round of Task Force member introductions, the presentations commenced as Barbra Batshalom, Executive Director of The Green Roundtable, opened with an overview of green building.

CASE STUDY PRESENTATION NOTES

Manulife Building
Presented by Mark Adamo – Manulife Financial and Bernie Gandras - SOM

Design Team: Skidmore, Owings and Merrill (SOM). Adrian Smith worked with Suffolk Construction to understand complexities of the site. SOM took a holistic approach, utilizing in-house structural, mechanical, electrical and plumbing engineers.

Opportunities and Challenges of the Site and Design: one can come up with a pleasing design that also fits the cost parameters.

Market: The market was in an upward spiral at the time of development.

Goals: Reach further with green technologies: Adrian and Bernie both worked with European companies on double-skin technologies and the green roof. Without this effort, they would not have been able to materialize their desires green-wise.

High-end Signature Features: Getting into the process, massing became difficult. The glass approach with new glass and energy code expectations left them with a dark green building. Adrian and SOM helped to move to the next level. They wanted a Class A image, not an old style thick green glass building.

Design for Transportation: The City and Mass Port were all there with open arms relating to design around the Silver Line expansion, because this is a very forward thinking building.

Process: Utilizing the energy code with a double-skin building had never been tried before, so it was impossible to work with existing rebate and different incentive programs. Many programs are defined so specifically that Manulife either could not take advantage or did not qualify. Fortunately, Manulife was open to the idea of a cutting edge, far reaching building. They know the replacement cost of everything, 5 years, and even 10 years out.

Green Aspects:
- Double skin curtain wall: System presented some fire safety considerations. SOM interviewed numerous manufacturers to find the technologically best and the most reliable wall system.
- First curtain wall based on differential pressure created by HVAC system. Selected exterior insulating coating was only available in Europe. Air flows in through bottom slot and up through the glass to prevent feeling temperature difference next to the glass.
- Energy code approval process: w/in guidelines of MA
- Energy code made reference to code NFRC200. Employed qualified licensed engineer and Energy Modeling to verify the flows.

Roof Garden: Massing of the building is key in determining the size of the garden.

Six-Story Atrium: Due to site constraint over the MBTA line and the 60ft easement they designed around and above the MBTA site. This section is used for fitness center, staff dining and childcare.

Underground parking: 177 cars

Design Approach:
- Sensitive to site constraints and configuration and Mass Port RFP criteria
- Promote public transport via the Silver Line
- Computer simulated energy models
- High efficiency mechanical systems
- LEED Rating: registered, seeking certification
- Anticipate to be certified at 32 points
- Sustainable site

- Erosion + sedimentation
- Urban redevelopment
- Alternative transportation
- Landscape + exterior design
- Water efficiency
- Water use reduction
- Energy + Atmosphere
- Fund build system commissioning
- Minimum energy requirements
- CFC reduction in HVAC+R equipment
- Ozone depletion
- Materials and Resources
- Low emitting materials (VOCs, adhesives)
- Indoor Environmental Qualities
- Thermal comfort
- Daylight
- Recycled content (indoor and exterior)

Erie Ellington Homes Project
Presented by Bruce Hampton, Elton + Hampton Architects, Hickory Consortium

Market Forces: Profits vs. Non-Profits. This is a tax credit rental housing program

Public Policies: Affordable Housing Standards and State Building Code

Industry and Practice:
- Systems thinking vs. building by habit
- How can we leverage the process to the benefit of the project?
- Combining systems simplifies equipment and saves on the initial cost. The project is not technically innovative. All the high efficiency equipment was normal installation.
- Narrative communication was extensively used to bringing all the players together in a collaborative effort to meet the owner's goals and foster cooperation on the job site.

Thinking Up-Front: Sponsorship by the DOE allowed for a lot of thinking up front. Shifting thinking about how to fund architects and engineer, helped to realize that it doesn't cost more, but that what can change the whole outcome is when they get paid.

Energy: Overall savings are 45% over a Massachusetts code building. Designed to get a little over 50%, turned out there was more domestic hot water use than expected due to more occupants because of the housing crisis in Boston.

The Neighborhood: The neighborhood wanted high quality buildings and ownership. E-E is not ownership oriented so the Codman Square Neighborhood Development Corporation has a management team that takes care of the facility.

Materials: No vinyl was used in the project.

Methodology:
- Partnership is crucial to success in the Green Building arena. Well document the client’s needs.
- Performance specs: communicate expectations and testing requirements in the narrative form so everyone has the same understanding.
- Walk-the-walk: if you're bringing people together, bring the coffee and donuts too.

Public Players:

- Codman Square Neighborhood Development Corporation
- Department of Neighborhood Development, current residential design standards reflect many things built at Erie Ellington
- Department of Housing and Community Development has invited Erie-Ellington to help with sustainability
- Boston Redevelopment Authority – Regulatory and design review.
- EPA: Important role played by their local facilitator, for air monitoring and blower door tests as well as rebate access

"Devalue Engineering", how do you know how to make the choices? Know the goals of the project manager/client and keep them close throughout the project. If we don't choose to do things sustainably, we really can't afford to be doing it. "If you don't know where you're going, you will wind up there." Yogi Berra

Linear thinking dominates in the building industry and is fairly prescriptive. We need to take a whole building approach, a whole different take than the current one. In New England, energy is the main concern and water is very important to us, if we reduce the throughput of water in our system, our water bills will decrease. We are trying to create high performance buildings within a low performance industry. The industry is our largest market force and here today we are taking the opportunity to do something about it.

MEETING DICUSSION

Joy Conway then opened the floor for discussion of how this Task Force can be influential, especially in the context of energy and the recent problems with our national grid.

Questions from the Task Force:

- What is the broader economic context?
- What role might green buildings play in this energy crisis?
- How does human nature defeat Green Technology systems?
- What is the financial tipping point for an occupant to go green?

Comments from the Task Force:

- It is apparent that we are overly dependent on fossil fuels and energy deliverance to people. As a city, Boston can chose to move away from fossil fuels, cities are the places that can have serious impact.
- Life cycle costing is important. We need to accumulate a wealth of case studies, especially on energy systems.
- The context set from energy commerce is a longer-term economic picture.
- Green systems are going to enhance human systems to a far greater extent than the 6% savings on energy. People make up 60-75% of the cost.
- Owners, in the formative phases of a development project, are interested in forward thinking and renewable technologies (e.g.: co-generation plant), but are getting locked down in the grid issues right now. Developers are going to the low-hanging fruit, we don't want Boston to lose out on these developers.

Resources Available:

- The Massachusetts Renewable Energy Trust (RET) can help set the economic context in our discussion of energy and will work with the Task Force to bring expertise on cost-benefit analysis. MTC is arranging a presentation in Boston by Greg Katz author of the soon to be released California study Costs and Financial Benefits of Green Building.
- The Federal Department of Energy has top-notch people who are looking to do work here in Massachusetts to use as an example around the country.
- MTC is providing $100,000 to the BRA for Early Feasibility Study grants to explore new green building practices. Input on how to utilize this money is urged and welcome.
- Rocky Mountain Institute (RMI) has completed good research on certain points raised in discussion regarding the interplay of human nature and green design, as well as life cycle costing. http://www.rmi.org
- National Science and Technology Council, Subcommittee on Construction and Buildings, Preliminary Report (Washington D.C., 1993)
- Worldwatch Paper 124

CLOSE OF MEETING

Joy closed the meeting with sincere thanks to the Task Force members and a special thank you John Drew, for hosting the meeting here at the World Trade Center.

The next meeting will be on October 16th, location to be announced.